

In the Claims:

1. (Currently amended) A diamond tool fabricated with a single crystal diamond artificially synthesized under high pressure in a temperature difference method, characterized in that said diamond has a crystal containing ~~an impurity~~ nitrogen in an amount of at most 3 ppm, and said diamond has a Knoop hardness on a (100) plane being higher in a <110> direction than in a <100> direction, and the tool has a blade with an end having a plane orientation being a (110) plane.

2. (Currently amended) The diamond tool according to claim 1, wherein said crystal contains said ~~impurity~~ nitrogen in an amount of at most 0.1 ppm.

3. (Original) The diamond tool according to claim 1, being one of an ultra high precision cutting tool, a microtome knife, a diamond knife, a diamond stylus, a line drawing die, and a dresser.

4. (Previously presented) The diamond tool according to claim 1, wherein a titanium containing, activated brazing material is employed to attach said diamond to a main body of the tool.

1 **5.** (Currently amended) A diamond tool fabricated with a single
2 crystal diamond artificially synthesized under high
3 pressure in a temperature difference method, characterized
4 in that said diamond has a crystal containing nitrogen in
5 an amount of at most 3 ppm, and said diamond has a Knoop
6 hardness on a (100) plane being higher in a <110> direction
7 than in a <100> direction, and the tool has a blade with an
8 end having a plane orientation being a (110) plane, and
9 said crystal also contains nickel in an amount of at least
10 0.01 ppm and not more than 10 ppm.

Claim 6 (Canceled).

1 **7.** (Previously presented) The diamond tool according to claim
2 5, wherein a titanium containing, activated brazing
3 material is employed to attach said diamond to a main body
4 of the tool.

1 **8.** (Currently amended) A diamond tool fabricated with a single
2 crystal diamond artificially synthesized under high
3 pressure in a temperature difference method, characterized
4 in that said diamond has a crystal containing nitrogen in
5 an amount of at most 3 ppm, and said diamond has a Knoop
6 hardness on a (100) plane being higher in a <110> direction
7 than in a <100> direction, and the tool has a blade with an
8 end having a plane orientation being a (110) plane, and
9 said crystal also contains boron in an amount of at least

10 0.01 ppm and not more than 300 ppm and nickel in an amount
11 of at least 0.01 ppm and not more than 10 ppm.

Claims 9 and 10 (Canceled).

1 11. (Previously presented) The diamond tool according to claim
2 8, wherein a titanium containing, activated brazing
3 material is employed to attach said diamond to a main body
4 of the tool.

1 12. (Currently amended) A diamond jewelry article comprising a
2 synthetic single crystal diamond artificially synthesized
3 under [[ultra]] high pressure ~~at high temperature~~ in a
4 temperature difference method, characterized by ~~having~~
5 in that said diamond has a crystal containing nickel as a
6 substitutional atom and containing nitrogen in an amount of
7 not more than 3 ppm, and said diamond has a Knoop hardness
8 on a (100) plane being higher in a <110> direction than in
9 a <100> direction.

1 13. (Currently amended) The ~~synthetic single crystal diamond~~
2 diamond jewelry article according to claim 12, wherein said
3 nickel is contained in an amount of at least 0.01 ppm and
4 ~~at most~~ not more than 10 ppm.

1 14. (Currently amended) The ~~synthetic single crystal diamond~~
2 diamond jewelry article according to claim 12, containing
3 said nitrogen in an amount of at least 0.01 ppm and ~~at most~~
4 not more than 3 ppm.

1 15. (Currently amended) The ~~synthetic single crystal diamond~~
2 diamond jewelry article according to claim 12, ~~used for a~~
3 ~~tool.~~ wherein said crystal further contains boron as a
4 substitutional atom.

1 16. (Currently amended) The ~~synthetic single crystal diamond~~
2 diamond jewelry article according to claim 15, wherein
3 ~~a titanium containing, activated brazing material is~~
4 ~~employed to attach the synthetic single crystal diamond to~~
5 ~~an end of said tool.~~ said boron is contained in an amount
6 of at least 0.01 ppm and not more than 300 ppm.

Claims 17 to 19 (Canceled).

1 20. (Original) A method of synthesizing a single crystal
2 diamond under ultra high pressure at high temperature in a
3 temperature difference method, characterized by employing
4 a solvent formed of at least one of iron and cobalt, at
5 least 36% by weight of nickel, at least 1% by weight and at
6 most 2% by weight of titanium, and at least 3% by weight
7 and at most 5.5% by weight of graphite.

1 **21.** (Previously presented) The method according to claim 20,
2 wherein a seed face of a seed crystal is a (100) plane of
3 a crystal of diamond.

1 **22.** (Original) The method according to claim 20, wherein said
2 single crystal diamond is synthesized at $1380 \pm 25^{\circ}\text{C}$.

1 **23.** (Original) The method according to claim 20, wherein said
2 single crystal diamond is synthesized at a rate of at least
3 3.9 mg/hr and at most 4.7 mg/hr.

Claims **24 to 32** (Canceled).

1 **33.** (Original) A method of synthesizing a single crystal
2 diamond under ultra high pressure at high temperature in a
3 temperature difference method, characterized by employing
4 a solvent formed of at least one of iron and cobalt, at
5 least 36% by weight of nickel, at least 1% by weight and at
6 most 2% by weight of titanium, at least 0.1% by weight and
7 at most 0.2% by weight of boron and at least 3% by weight
8 and at most 5.5% by weight of graphite.

1 **34.** (Previously presented) The method according to claim 33,
2 wherein a seed face of a seed crystal is a (100) plane of
3 a crystal of diamond.

1 **35.** (Original) The method according to claim 33, wherein said
2 single crystal diamond is synthesized at $1350 \pm 30^{\circ}\text{C}$.

1 **36.** (Original) The method according to claim 33, wherein said
2 single crystal diamond is synthesized at a rate of at least
3 3.1 mg/hr and at most 3.8 mg/hr.

1 **37.** (New) The diamond tool according to claim 1, wherein said
2 amount of said nitrogen is less than 3 ppm.

1 **38.** (New) The diamond tool according to claim 1, wherein said
2 amount of said nitrogen is less than 1 ppm.

1 **39.** (New) The diamond tool according to claim 1, wherein said
2 amount of said nitrogen is less than 0.5 ppm.

1 **40.** (New) The diamond tool according to claim 39, wherein said
2 amount of said nitrogen is at least 0.04 ppm.

1 **41.** (New) The diamond tool according to claim 5, wherein said
2 amount of said nickel is less than 10 ppm.

1 **42.** (New) The diamond tool according to claim 5, wherein said
2 amount of said nickel is less than or equal to 2 ppm.

[RESPONSE CONTINUES ON NEXT PAGE]